

IN THE CLAIMS

The following claim set replaces all prior versions, and listings, of claims in the application:

1 (Currently Amended). An electrical muscle stimulator comprising:

means for generating a predetermined stimulating signal, and

means for applying the signal to a muscle,

wherein the signal comprises a series of regularly spaced bursts of pulses,
said bursts of pulses are separated by non-burst periods devoid of bursts at least as long
in duration as each of said bursts of pulses, with wherein each of said bursts including
of pulses comprises a first component as a first continuous train of regularly spaced
pulses and a second component as a series of regularly spaced second trains of
regularly spaced pulses, the second component being combined with the first
component and the spacing between successive pulses in the second ~~pulse~~-trains being
less than the spacing between successive pulses in the first ~~pulse~~ continuous train.

2 (Currently Amended). A stimulator as claimed in claim 1, wherein each
burst of pulses includes a third component as a series of regularly spaced third trains of
regularly spaced pulses, the third component being combined with the first and second
components, and the spacing between successive pulses in the third ~~pulse~~-trains being
less than the spacing between successive pulses in the second ~~pulse~~-trains.

3 (Currently Amended). A stimulator as claimed in claim 2, wherein each burst of pulses consists of the same number of second and third ~~pulse~~-trains.

4 (Currently Amended). A stimulator according to claim 3, wherein each third ~~pulse~~-train immediately precedes one of said ~~a respective~~-second ~~pulse~~-trains.

5 (Currently Amended). A stimulator as claimed in claim 2, wherein each third trains consists of two pulses.

6. (Currently Amended) A stimulator as claimed in claim 3, wherein each third trains consists of two pulses.

7(Currently Amended). A stimulator as claimed in claim 4, wherein each third trains consists of two pulses.

8 (Currently Amended). A stimulator as claimed in claim 2, wherein the first continuous train consists of pulses at 500 milliseconds intervals, each of the second trains consists of pulses at 20 milliseconds intervals, and each of the third trains consists of pulses of intervals of 12 milliseconds or less.

9 (Currently Amended) A stimulator as claimed in claim 8, wherein each of the second ~~of the~~ pulse trains consists of pulses timed at 0, 8, 20, 40, 60, 80, 100 and 500 milliseconds.

10 (Currently Amended). A stimulator as claimed in claim 8, wherein each of the second of the pulse trains consists of pulses timed at 0, 8, 28, 48, 68, 88, 108 and 500 milliseconds.

11 (Previously Presented). A electrical muscle stimulator comprising:

means for generating a predetermined stimulating signal, and

means for applying the signal to a muscle,

wherein the signal comprises a series of regularly spaced bursts of pulses with each burst including a first component as a first continuous train of regularly spaced pulses and a second component as a series of regularly spaced second trains of regularly spaced pulses, the second component being combined with the first component and the spacing between successive pulses in the second pulse trains being less than the spacing between successive pulses in the first pulse train, and

a battery powered hand-held unit with a single input/output connector, a battery charger, an electrode connector connected to said means for applying, and a computer connection cable, the battery charger, electrode connector and computer connection cable each being adapted to be connected to the single input/output connector such that the electrode connector cannot be connected to the hand-held unit if the hand-held unit is connected either to the battery charger or the computer connection cable.

12 (Currently Amended). A stimulator as claimed in claim 1, further comprising means for enabling a user to adjust ~~the~~ an amplitude of the pulses.

13 (Previously Presented). A stimulator as claimed in claim 11, wherein the hand-held unit is programmable and is adaptable to be controlled by computer-generated signals applied to the single input/output connector to adjust the width of the pulses.

14(Previously Presented). A stimulator as claimed in claim 11, wherein the hand-held unit further comprises means for storing patient treatment records data.

15(Previously Presented). A stimulator as claimed in claim 14, further comprising means for outputting said patient treatment records data to the single input/output connector.

16 (Currently Amended). A method for electrically stimulating a muscle in which a stimulating signal is applied to the muscle, comprising:

- a) generating the stimulating signal, the signal comprising ~~a series of~~ regularly spaced bursts of pulses and non-burst periods between said bursts, wherein said non-burst periods are each longer in duration than as long as a ~~during of~~ at least one of said bursts, ~~of pulses, wherein~~ with each of said bursts of pluses further comprises including:

(i) a first component as a first continuous train of regularly spaced pulses, and

(ii) a second component as a series of regularly spaced second trains of regularly spaced pulses, wherein the second component is combined with the first component and the spacing between successive pulses in the second ~~pulse~~-trains is less than the spacing between the successive pulses in the first continuous train, and

b) applying the stimulating signal to the muscle.

17 (New). A method as in claim 16 wherein each of the bursts of pulses further comprises a third component comprising a series of regularly spaced third trains of regularly spaced pulses, the third component being combined with the first and second components, and the spacing between successive pulses in the third trains being less than the spacing between successive pulses in the second pulse trains.

18 (New). A method as in claim 17 wherein each burst of pulses consists of the same number of second and third trains.

19 (New). A method as in claim 17 wherein each third pulse train immediately precedes a respective second pulse train.

20 (New). A method as in claim 17 wherein each third train consists of two pulses.

21 (New). A method as in claim 18 wherein each third train consists of two pulses.

22 (New). A method as in claim 19 wherein each third train consists of two pulses.

23 (New). A method as in claim 16 wherein the first continuous train comprises pulses at 500 milliseconds intervals, each second pulse train comprises pulses at 20 milliseconds intervals, and each third train comprises pulses of intervals of 12 milliseconds or less.

24 (New). A method as in claim 16 wherein each second pulse train comprises pulses timed at 0, 8, 20, 40, 60, 80, 100 and 500 milliseconds.

25 (New). A method as in claim 17 each second pulse train comprises of pulses timed at 0, 8, 28, 48, 68, 88, 108 and 500 milliseconds.